APPRAISAL BULLETIN

PUBLISHED IN THE INTERESTS OF REAL ESTATE ANALYST SUBSCRIBERS BY

ROY WENZLICK & CO.

Real Estate Economists, Appraisers and Counselors

JULY 8
1949

Volume XVIII

Copyright 1949- by ROY WENZLICK & CO - Saint Louis

Number 31

" RULE OF THUMB " APPRAISING

MANY years and much thought have been devoted to the development of the appraisal techniques and methods that are used today. In the careful cultivation and refinement of these techniques, it is only natural that many so-called "rules of thumb" should spring into weedlike growth, and at times threaten the existence of the more scientific methods.

Rules of thumb are frequently tempting, especially to inexperienced appraisers who hear them discussed and apply them full strength to a problem. Unless these rules are first diluted with sound judgment, their application often brings unsatisfactory results.

One of the commonest "rules of thumb" is the one that states that the value of the property is equal to so many times the monthly rent. The most frequently heard multiplier is 100. The application of the rule was widespread during the boom of the twenties. A flat with a monthly rental of $150 was virtually certain to be valued at $15,000. A corollary to this rule is the one that figures the annual rent of a property as a certain percentage of value - usually 12%. In other words, if the annual rent of a property is $1,800, this figure equals 12% of the value - in this case, $15,000.

Because of variations in operating expense, maintenance expense and fixed expense, these two rules were never particularly reliable. Of course, since the enactment of rent controls, they are totally inapplicable to residential properties. Even before rents were controlled, the relationship between value and gross rent was a nebulous one. In 1942, before the effects of rent control became widespread, we conducted a nation-wide survey to determine the relationship between gross rent and value on our six-room frame house. At that time in one city the market value of the house was 90 times the monthly rent, while in another city the value was 166 times the monthly rent. In another city the market value was 108 times the monthly rent, while in the suburbs of the same city the market value was 148 times the monthly rent.

This same survey disclosed that in one city annual rent was 13.3% of market value, while in another annual rent amounted to only 7.2% of market value. In the city and suburb mentioned above, the percentages were 11.2% and 8.1%, respectively. Other variations almost as great were found among the other 150 cities covered in the survey.

In conducting this survey of market values in over 150 cities, we specified that the residence under consideration was not over one year old. This stipulation

would give a much more stable group of answers than would be obtained if the age of the residence had not been specified. It is doubtful that so wide a differential would be found on income property, but one even half as great should eliminate the reliability of these two rules.

We have recently reviewed several thousand sales of property in the St. Louis area. These sales took place from 1924 through 1939 and in making the review we noted the relationship between the monthly rent and sales price on all apartment buildings and on all four-family flats.* During the 20's the multiplier on the flats was fairly stable. The sales prices ranged between 85 and 95 times the monthly rent, although there were extremes of 50 times the monthly rent and 140 times the monthly rent.

During the depression of the 30's the multiplier dropped to a very low level, in some cases as low as 35. In other words, in 1939 it was possible to buy a four-family flat in St. Louis for as little as 35 times the monthly rent. The multiplier on apartment buildings was somewhat lower during the entire period, ranging between 65 and 75 times the monthly rental. There were extreme cases where the sales prices of apartment buildings were 110 times the monthly rental. During the depression it was possible to buy apartment buildings for as low as 50 times their monthly rent.

One of the large insurance companies has done a great deal of research on this subject and has compiled a series of tables for its mortgage loan officers to use as a guide in making loans. In compiling these tables, however, they have considered not only the rent level of the property but its geographic location, its age and its physical condition.

The rule whereby operating expenses are estimated on a square foot basis is likewise unsound for most purposes. The practice of estimating operating expenses on the basis of a percentage of gross income or so much "per room" is even less reliable. Practical unit costs for estimating various items of expense are of great value to the appraiser, but to simply hang the entire operating expense estimate on a square foot, or per room basis, is to choose a very weak peg. As an illustration - cost records on 20 apartment buildings over the same period of time reveal an operating cost of $140 per room on one building and only $60 per room on another. Heating expense alone varied from $9.00 to $16.10 per room. Operating expense ranged from 41% to 56% of gross annual rents. On a building with $50,000 gross rents, the estimated expenses, if arrived at through the percentage method, might be $20,500 per year, or they might be $28,000 per year, quite a difference, especially if capitalized at 7%. The 20 buildings were not exactly similar, which accounts for part of the discrepancy, but we have frequently seen cost figures on twin buildings standing side by side that showed wide differences in operating cost per room and per square foot. The percent of gross annual rent taken by operating expense also showed a great variation. In the case of the twin buildings, these variations were caused by differences in management policy.

Estimating expenses should be done by using a practical common denominator.

*In St. Louis, as in other cities, a four-family flat has two units upstairs and two down - separate entrances and separate heating plants. Each tenant pays his own heat, gas and light bills.

For instance, the number of people occupying a building will have a great deal more influence on the lighting, water and gas expense than will the number of square feet, or the number of rooms. Refrigerator expense will have very little in common with the size of the apartment units, or the number of rooms. Most buildings, regardless of their size, will have only one refrigerator per living unit. Therefore, the estimate should be made on the basis of so much expense per refrigerator. Estimating replacement cost on a per room basis likewise puts the appraisal on shaky ground. In 1947, houses built under FHA varied from $1,240 per room for 8-room houses to $1,950 per room for 3-room houses.

The rule that a family can afford to pay 2-1/2 times its annual income for the purchase of a home probably has a firmer foundation than most rules of thumb. Even such a time-tested and traditional rule as this one needs careful consideration before applying it to any and all occasions. During 1947 the homes insured through FHA were valued at 1-1/3 to 3-1/3 times the annual income of the borrower. The average cost of all homes insured under section 203 in 1947 was 2 times the annual income of the borrower and on existing homes the value was 1-8/10 times the borrower's income. Monthly housing expenses on these same homes ranged up to 33% of the borrower's monthly income.

The ratio between the value of the land and the total value of house and lot is another rule of thumb that develops considerable elasticity. In 1940 the value of the land under new homes insured under section 203 of FHA was 13.2% of the total value; the percentage value of land under existing homes during the same year was 20.6%. By 1947 these two percentages had dropped to 11.8% and 13.5%, respectively. The reason for this change of percentage relationship is the wide fluctuations in reproduction cost of the buildings. While land values also change from year to year, they are not afflicted with the tremendous changes that occur in building costs. Even within the same time period, the ratio between land value and total value cannot be depended upon to show consistent results. The ratio of land value to total value on those homes insured by FHA during 1947 under section 203 ranged from 10.7% to 16.9%.

We have been taken to task rather severely at times for our statements that land values for residential use do not appreciate to nearly so great an extent as do other forms of real estate. In view of this, the following table is of interest. This table shows the value of all homes insured under section 203 from 1940 through 1947 and the value of the land upon which these houses were built.

Year	Value of new house*	Value of new lot	% change from 1940 House	% change from 1940 Lot	Value of existing house*	Value of lot	% change from 1940 House	% change from 1940 Lot
1940	$4,366	$662	--	--	$3,652	$948	--	--
1942	4,733	635	+ 8.5%	- 4.0%	4,337	935	+19.0%	- 1.4%
1944	†	†	--	--	4,560	924	+25.0%	- 2.5%
1945	†	†	--	--	4,654	857	+27.0%	- 9.6%
1946	5,797	761	+33.0%	+15.0%	5,101	833	+40.0%	-12.1%
1947	6,681	893	+53.0%	+35.0%	5,854	915	+60.0%	- 3.5%

*Value of house only.
†Unavailable.

This period from 1940 through 1947 covers most of our Great Inflation and should certainly be conducive to appreciation in land values. It will be noticed that from 1940 to 1947 the value of new lots beneath the new houses increased 35%, while the value of the old lots beneath the existing houses was 3.5% lower in 1947 than in 1940. The increased value in new lots was due to an increase in the cost of developing the land and not to an appreciation in the value of the raw land itself.